

**Meeting with those who commented on the second notice  
of proposed revisions to the Ground Water Quality Standards  
to change the drinking water class ground water criterion for arsenic  
to the revised Maximum Contaminant Level set by EPA  
July 13, 2007**

**Request for comment on proposed rule revisions:**

The Indiana Department of Environmental Management (IDEM) developed draft rule language for amendments to 327 IAC 2-11-6 concerning the numeric criteria for arsenic in the ground water quality standards. IDEM requested public comment from October 25, 2006, through November 24, 2006, on this draft rule language which was second noticed in the Indiana Register on October 25, 2006

**Basic purpose and background of the proposed rule revisions:**

IC 13-18-17-5(a)(3) requires the Water Pollution Control Board to adopt rules concerning ground water quality standards to establish health protection goals for untreated water in water supply wells. The federal maximum containment level (MCL) for arsenic in drinking water was reduced from 0.05 mg/L to 0.010 mg/L in January 2006. Since the federal MCL has been reduced, IDEM is reducing the numeric criteria for arsenic as a health protective goal for untreated ground water used as drinking water, which is also the maximum permissible level of a contaminant in drinking water class ground water.

IDEM received comments from Duke Energy and the Indiana Chamber of Commerce.

To improve the agency's understanding of the concerns of those who commented, IDEM invited those who commented and other interested parties to a meeting to discuss the proposed rule revisions.

**Present at meeting:**

Bill Beranek, Indiana Environmental Institute  
Pat Carroll, IDEM, Drinking Water  
Dave Gillay, Barnes & Thornburg  
Vince Griffin, Indiana Chamber of Commerce  
Stacy Jones, IDEM, Drinking Water  
Jim Meiers, Duke Energy  
Martha Clark Mettler, IDEM, OWQ  
Nat Noland, Indiana Coal Council  
Bruce Palin, IDEM, OLQ  
Stan Pinegar, Indiana Energy Association  
Amanda Simpson, Indiana Environmental Institute  
Jim Sullivan, IDEM, Drinking Water

**Meeting Summary:**

Pat Carroll gave an overview of the Ground Water Quality Standards (GWQS) rule, including specific information on drinking water class ground water vs. limited class (10x drinking water standards) and impaired class. The criteria set in this rule do not apply (except at wells) until a regulatory program adopts a rule to implement the standards.

Jim Meiers indicated that there was no good consensus at the federal level for the arsenic maximum contaminant level (MCL) when it was lowered. He reiterated the comments he made during the comment period and referred to a USEPA settlement letter to UWAG Counsel Steven J. Koorse. EPA, Solid Waste has indicated that this number (10 ppb) won't be used for RCRA. He also indicated that the MCL is set at a linear slope level.

Bill Beranek mentioned that toxicity levels vary based on several criteria and that the MCL is generally set based on the slope factor of a Taiwanese study. The question is, "what conservative assumptions are used?" If arsenic were a genotoxic human carcinogen, the MCLG would be zero. Arsenic is not a genotoxic human carcinogen. The skin cancer caused by arsenic is treatable, not fatal. However, the MCL was set using the best public policy in the face of uncertainty.

Jim Meiers indicated that the Science Advisory Board (SAB) is looking at a new slope factor for cancer risk assessment and that the EPRI is completing studies for EPA in 2008-2009, then EPA will be looking at the 10 ppb MCL again.

Bill Beranek mentioned that there is a threshold for arsenic, however, they don't have the data or experiments to know what that threshold is.

Bruce Palin indicated that IDEM has to rely on established numbers because IDEM doesn't have the resources to do independent studies that are already being done in other places.

There was then a discussion on drinking water class ground water and the use of the standards in other programs.

Bill Beranek indicated that there are pockets through the state where the natural background levels of arsenic are above the MCL – however, there are policy issues involved and the MCLs are not enforced in private wells. Therefore, users of private wells can and do use drinking water above the MCLs. MCLs only apply to public water systems.

Bruce Palin also indicated that of the existing waste disposal sites in Indiana, OLQ had not identified any that would be adversely impacted by lowering the arsenic criterion.

Jim Meiers then mentioned that there are a large percentage of waste management units that haven't been tested. He also discussed how the Ground Water Task Force (GWTF) was looking at coal ash lagoons. By putting this change in the GWQS, this will impact all other programs that use them. He also indicated that it would put 50% of the power

plants out of business. He wanted to know if the system for alternative standards works. He also mentioned that Illinois has standards set at different levels.

Martha Clark Mettler then brought the discussion back around to the GWQS by bringing up the fact that the GWQS are not applicable, other than at wells, without additional rulemaking. This had been discussed for a decade during the creation of the GWQS.

Bill Beranek mentioned that changing the standard here will make it easier for other programs to use it as a default standard without thinking it through.

Pat Carroll reiterated that under the current environmental rules and statutes, facilities are not allowed to contaminate. The rule is set up to maintain and protect.

Bill Beranek asked what happens if the background is above the GWQS and there are other sources?

Bruce Palin indicated that IDEM use statistical analyses to determine if there were a statistically significant increase in arsenic between the up-gradient and down-gradient wells. A site would not be expected to address contamination from naturally occurring or off-site sources.

Bill Beranek then asked what is the purpose? Is this something that is only followed if in cleanup programs?

Nat Noland then mentioned that if pits, ponds, and lagoons are regulated in the future, then points of compliance would be set in that rulemaking. It would be best to discuss how this would apply to pits, ponds, and lagoons in the rulemaking discussion at that time.

Bruce Palin indicated that if IDEM were to look at surface impoundments, consideration would be given to distinguishing existing sites from future sites relative to ground water monitoring requirements.

Jim Meiers asked if IDEM would change the GWQS if EPA changed the MCL.

Pat Carroll indicated that IDEM would.

Bill Beranek then indicated that the GWQS initially passed because of the applicability section, specifically 327 IAC 8-2-11-2(c), which states that the standards established in this rule shall not limit nor expand the authority of an agency.

Martha Clark Mettler stated that as a public policy standpoint, IDEM needs to align the drinking water class ground water with the MCLs.

It was stated that based on the changes to the rule, there may be an economic impact and that an economic analysis needs to be done. The analysis should acknowledge the

information gap in potential future costs in other programs since there is not federal requirement for this to be adopted for water.